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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,101	06/13/2006	Christoph Thalacker	58745US004	7194
32692 7590 06/05/2008 3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427				
EXAMINER YOON, TAE H				
ART UNIT 1796		PAPER NUMBER		
NOTIFICATION DATE 06/05/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/564,101

Applicant(s)

THALACKER ET AL.

Examiner

Tae H. Yoon

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 5/29/07
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

The renumbering of claims and the original claim numbers does not match and thus amended claims is improper and objected. For example, the original claim 3 and the amended claim 3 do not match. Also, claim numbers 14 and 15 are used twice (cancelled and currently amended) which is improper. The total claim numbers should be 17 including canceled claims, and thus, the method claim 15 has been renumbered as claim 17 under Rule 126 for sake of examination under merit (cancelled claims 14 and 15 had been treated as claims 15 and 16, respectively. Submission of new claim set starting with new (independent) claim number 18, or with new (dependent) claim 18 with current claim 1 would be needed in order to avoid confusion. Do not introduce new claim anywhere before the last claim, and new claim must be added after the last claim.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 10, 13, 14 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites that (at least) 1 of the groups R_3 , R_4 , and R_5 comprises at least 2 groups according to formula (III). Each of said R_3 , R_4 , and R_5 is bonded to a carbon atom of the formula (II) as a single bond, and thus it is unclear how at least 2 groups according to formula (III) are bonded or arranged to said carbon atom as R_3 for example. The recited "at least about" in claim 10 is indefinite. It has to be either "about"

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or "at least". Cancellation of "about" is suggested. See *Amgen, Inc. v. Chugai Pharmaceutical Co., Ltd.*, 18 USPQ 2d 1016 (fed. Cir. 1991).

The recited "phosphate" in second line from bottom of claim 13 is incomplete and thus is indefinite. A comma (,) is missing between "dimethacrylate)" and "glycerol-1,3----" in line 5 of claim 14, and thus it is indefinite. The recited "substituent is, and" in line 9 of claim 17 is incomplete and thus it is indefinite.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 and 17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Frey et al (US 6,245,872).

Frey et al teach the instant invention at col. 3 and in claim 1 with preparation examples 1 and 2 in which a mixture of a monoester and diester of a phosphate is taught. The prepolymer of claim 6 (and 7 and 8) is an optional component since about

0 parts by weight includes 0. The instantly recited physical properties would be inherent, especially in view of no particular curing method.

Thus, the invention lacks novelty.

Claims 1-14 and 17 are rejected under 35 U.S.C. 103(a) as obvious over Frey et al (US 6,245,872) in view of Fuchigami et al (US 5,925,690)..

Claim 14 further recites (glycerol-1,3-dimethacrylate) phosphate over Frey et al who teach diesters at col. 3. The structure with n being 2 in lines 16-25 would need a linking group or a moiety.

Fuchigami et al teach the instant monomer having glycerol linking group at bottom of col. 4.

It would have been obvious to one skilled in the art at the time of invention to utilize said monomer taught by Fuchigami et al in Frey et al since Frey et al teach diester of a phosphate and since use of the instant monomer in dental composition is well known as taught by Fuchigami et al absent showing otherwise.

Claims 1-13 and 17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Steckler (US 3,855,364).

Steckler teaches the instant invention in examples and claims. The prepolymer of claim 6 (and 7 and 8) is an optional component. The instantly recited physical properties would be inherent, especially in view of no particular curing method. Also, preamble, dental, has no probative value. Thus, the invention lacks novelty.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tae H Yoon
Primary Examiner
Art Unit 1796

THY/June 2, 2008

/Tae H Yoon/